DOCUMENT RESUME

ED 107 144 FL 006 910

AUTHOR	Oller, John W., Jr.
TITLE	Cloze, Discourse, and Approximations to English.
PUB DATE	[75]
NOTE	29p.
AVAILABLE FROM	Department of Linguistics, University of New Mexico, Albuquerque, New Mexico 87131 ($3.00)
EDRS PRICE	MF-$0.76 HC-$1.95 PLUS POSTAGE
DESCRIPTORS	*Cloze Procedure; *Connected Discourse; *Context Clues; Language Ability; Language Patterns; Pattern Recognition; Prose; Reading Comprehension; *Reading Skills; *Reading Tests; Semantics; Testing

ABSTRACT

Five orders of approximation to normal English prose were constructed; 5th, 10th, 25th, 50th, and 100th plus. Five cloze tests were then constructed by inserting blanks for deleted words in 5 word segments (5th order), 10 word segments (10th), 25 word segments (25th), 50 word segments (50th), and 100 word segments of five different passages of prose (100th plus). By a counterbalanced design to neutralize differences between groups and passages, it was demonstrated that the longer the surrounding context, the easier the cloze items; the beneficial effect of increasing amount of context extends beyond the 50 word mark. This suggests that the cloze procedure is a viable device for measuring effects (or knowledge) of discourse constraints extending well beyond the limits of 5-10 words of surrounding context. (Author)

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED107144

Cloze, Discourse, and Approximations to English

John W. Oller, Jr.

University of New Mexico

This paper addresses two closely interrelated questions.[1] First, is cloze procedure sensitive to constraints ranging over passages of prose longer than five to ten words? Or, stated differently are meaning constraints over such passages helpful to subjects in filling in a cloze test over those passages? Second, is there a point of diminishing returns such that providing additional context beyond that point will not help a language user to guess the missing words? In other words, is it harder to guess a missing word on the basis of five surrounding words of context than to guess the same missing word on the basis of an additional five words, or an additional ten words, or twenty five, or fifty? What is the point of diminishing returns if there is one?

These questions suggest ways of examining the hypothesis that grammar based expectancies ranging over all levels of discourse help the language user to infer the plausible limits of intended meanings and they enable the user to supply reasonable guesses about missing, distorted, or erroneous material in a stream of speech or a written passage. If this hypothesis is correct, in response to the first question, cloze procedure must be sensitive to discourse constraints a fortiori, and in answer to the second question the point of diminishing returns is probably much farther out than previously believed (cf. Carroll, 1972). In any case, the expectancy grammar hypothesis would predict that contexts beyond the five to ten word level will surely be helpful in inferring intended meanings and in supplying missing material.

FL006910

All of this seems tantamount to the trite and apparent truism that context is important to language use. However, there is considerable disagreement about how context affects language use; how it is related to internalized grammars of language users; and how it can be measured. For instance, Carroll (1972) argued that cloze procedure is probably not an appropriate device for the measurement of a person's ability to utilize discourse constraints--i.e., constraints ranging over passages of prose longer than five to ten words. A well known and often reprinted paper supporting Carroll's claim is a report entitled "Verbal Context and the Recall of Meaningful Material" by Miller and Selfridge (1950). From their study they concluded that "contextual dependencies extending over five to six words permit positive transfer, and it is these familiar dependencies, rather than the meaning per se, that facilitate learning." Moreover, they claim that "when short range contextual dependencies are preserved in nonsense material, the nonsense is as readily recalled as is meaningful material" (p. 184).

A little over a decade later, however, Coleman (1963) argued that it was counter-intuitive for scores on normal prose not to be greater than scores on nonsense. He found that in two attempted replications of the Miller-Selfridge results, approximations to English prose beyond the 5th order were more difficult both on a recall task (Sharp, 1958) and on a cloze task (Deese, 1961) than lower order approximations. He reasoned that the explanation might lie in the way the Miller-Selfridge experiment defined statistical orders of approximation to English prose. Their technique was as follows:

> At the second order, . . . , a common word, such as he, it, or the is presented to a person who is instructed

> to use the word in a sentence. The word he uses directly after the one given is then noted and later presented to another person who has not heard the sentence given by the first person, and he, in turn, is asked to use that word in a sentence. The word he uses directly after the word given him is then noted and later given to yet another person. This procedure is repeated until the total sequence of words is of the desired length. Each successive pair of words could go together in a sentence. Each word is determined in the context of only one preceding word (p. 180).

Higher orders of approximation can then be derived by simply starting with two words in order to get a 3rd order of approximation, or four words in order to get a 4th order, and so forth.

Coleman believed that higher orders of approximation might deviate farther and farther from normal sequences due to the construction procedure. He submitted 1st through 9th order approximations to twelve linguists and asked them to rank them according to their grammaticalness. The result was that 6th order approximations were judged less grammatical than 5th order approximations and 7th order approximations dropped even more dramatically on the scale of grammaticalness. The dip in the curve corresponded precisely to the results discovered by Deese (1961) and Sharp (1958) using similar orders of approximation. This suggested to Coleman that, in fact, the reason nonsense conforming to short range contextual dependencies in English is as easy to recall as higher order approximations (or even easier), is that the higher order approximations are not actually closer to normal English but rather farther away from it.

In two follow-up experiments he also made an important discovery about the Miller-Selfridge scoring procedure. In the first experiment, S's heard thirty word sequences conforming to 1st through 6th order approximations, and also normal prose. In the second experiment, S's read passages of 50 to 150 words in length conforming to the same criteria. In both cases S's tried to recall as much as they could of what they had read. Coleman found that if he scored the data by counting all of the words correctly recalled, irrespective of sequence, his findings paralleled those of Miller and Selfridge (1950) and several other investigators who had replicated their findings. However, if he scored the data by looking at correct sequences of words, i.e., sequences of two, sequences of three, four, and so on up to fifteen word sequences, the results markedly favored normal prose and the advantages of the higher order approximations tended to increase as recall was "scored in longer and longer sequences" (p. 246). The advantage of normal prose over the 5th and 6th order approximations generated by the Miller and Selfridge method was quite convincing.

Of course, there are other ways of generating approximations to normal prose, and there are other ways of investigating constraints over such materials. Deese (1961) used the cloze procedure as a method of testing ease of processing though he generated orders of approximation by the Miller-Selfridge method. If the cloze procedure were a suitable device for measuring a language user's ability to utilize long-range constraints over prose, this would further increase the applicability of the technique to the problems of assessing language proficiency in general and second language proficiency in particular. Although the procedures used by Coleman (1963) and others to assess characteristics of

of native speaker recall could be applied in second language proficiency measurement, if the cloze procedure were applicable, a great deal of prior research could be brought to bear (for reviews of the literature see Klare, 1974, and the annotated bibliographies by Riley, 1973, and Oller, in press).

Experiment

Method. While Miller and Selfridge (1950) constructed orders of approximation to normal English by adding words one at a time to strings of a predetermined length, it is possible to construct orders of approximation with more rigorous controls by starting with a passage of normal prose and simply chopping it up into segments of various lengths. The segments then can be shuffled to produce cloze test material and segments of different lengths can be viewed as "orders of approximation" to normal prose in a stricter sense than with the Miller-Selfridge method. Cloze items can be systematically inserted in the various segments to provide a measure of the differential effects of longer or shorter contexts. The design can in fact be very carefully counterbalanced to neutralize effects of variations in passage difficulties and skills of S's.

Materials. For the purpose of this experiment, five passages of prose were selected. Four were excerpted from selections in a reader edited by Gorrell, Laird and Freeman (1970). The fifth was a passage taken from a novel by Victoria Holt (1973). Each passage was at least one hundred words in length not counting a lead-in sentence in each passage, and a lead-out sequence of at least five words beyond the one-hundredth word. By deleting the third word of the second sentence of each passage and every fifth word thereafter, cloze tests of twenty

items each were constructed ranging over each of the five passages. Then, to achieve 5th, 10th, 25th, and 50th orders of approximation to the five original passages, counting from the first word of the second sentence of each passage, all of the passages were segmented into sequences of five words, ten words, twenty-five words, and fifty words. Each five word sequence contained exactly two words of preceding context and two words of following context with a blank inserted for the deleted word in the middle. Thus, for each passage, there were twenty items each of which appeared in five different conditions. Each set of twenty items appeared as 5th order approximations; 10th order, and so forth. For example, immediately following the lead-in sentence in passage I, there were twenty cloze items of the form:

> For those who hang out there, the Carry-out offers a wide array of sounds, sights, smells, tastes and tactile experiences which titillate and sometimes assault the five senses. The air __(1)__ warmed by smells from __(2)__ coffee urns and grill __(3)__ thickened with fat from __(4)__ deep-fry basket. The jukebox __(5)__ up a wide variety __(6)__ frenetic and lazy rhythms. __(7)__. . . .

This is the normal prose condition for each of the cloze items. The 5th order approximations consisted of the same items only in five word segments, such as,

> fat from __(4)__ deep-fry basket.
> wide variety __(6)__ frenetic and
> The air __(1)__ warmed by

and so forth. The 10th order approximations consisted of the same items in ten word segments. In the ten word segments, odd numbered items

always appeared first followed by even numbered items, as in

The jukebox __(5)__ up a wide variety __(6)__ frenetic and.

The 5th, 10th, 25th, 50th, and normal prose cloze items were typed on cards yielding a pool of five hundred items altogether. The cards were then stacked as is illustrated in Table I.

- - - - - - - - - - - - - -

Insert Tables I and II about here

- - - - - - - - - - - - - -

Next, on the basis of the permutations shown in Table II, the stacks were systematically rearranged. Column one, containing the complete passages was left alone, then, column two was reordered so that the cards from passage II in the 50th condition appeared at the top followed by III, IV, V, and I at the bottom. Each column was similarly rearranged until all of the rows contained exactly twenty items from each of the five original passages. Each row in fact contained exactly one hundred items, twenty in each of the five conditions and each set of twenty was from a different one of the five passages. From each one hundred item row, a cloze test was constructed.

The normal prose passage was placed first, followed by card twenty in the 5th word condition for that row, card ten in the 10th word condition, card four in the 25th, two in the 50th, nineteen in the 5th, nine in the 10th, and so forth until only ten cards in the 5th condition remained. Then the drawing continued first from the top of the stack then from the bottom until all cards were used up. Thus, items 1-20 on cloze test 1 were the twenty items ranging over the normal prose of passage I; item 21 was the last item from passage V; items 22-23 were the next to

the last and last item from passage IV; and so forth. In each separate test there were 100 different cloze items. Twenty items in the normal prose context (that is, a lead-in sentence followed by 100 consecutive words with 20 cloze blanks inserted followed by at least five words of lead-out ending at a period); twenty items each in the four other conditions shuffled together as described earlier. (For the full text of each original passage, see the Appendix.)

Subjects. Since the objective of the experiment was to contrast the test conditions rather than subjects, the only demographic data asked of subjects was their native language. Ninety-three adult native speakers of English each completed one of the cloze tests. Subjects were drawn from introductory linguistics classes and from students enrolled in the remedial English program at the University of New Mexico, and from a group of persons attending the Sixth Annual Michigan Conference on Applied Linguistics in February 1975. Subjects ranged in age from the late teens to over fifty. There was a nearly equal balance of males and females.

Procedure. The tests were administered to approximately equal subgroups on each occasion by pre-stacking them in the order of 1,2,3,4,5; 1,2,3,4,5; 1,2, etc. Then they were passed out in the same order. The first S and every fifth thereafter received test 1, the second S and every fifth +1 received test 2, and so forth. Thus the possibility of comparing answers was discouraged. Also, this method of test distribution effected a systematic random assignment of subjects from the various tested populations. (If this had not been done, the differences between the subject population taking test 1, rather than 2, and so forth, might have been a significant confounding factor, e.g., if people at the Mighigan

conference had taken only test 1, remedial English students at the University of New Mexico only test 2, etc., this would have introduced a possible confounding variable of group differences.)

Tests were scored by two methods. First, the exact word scoring method was used, and second, words other than the exact word which fit the total context of the original passage were counted correct. Clearly the former method is the simpler and more reliable scoring method.

Results and Discussion

If the hypothesis stated at the outset were correct, it should be easier to guess the missing words in the full context condition (that is, the 100th plus order of approximation) than in any of the other conditions which in fact should be ordered in an ascending rank from 5th, to 10th, to 25th, to 50th. Figure 1 shows that this prediction is sustained for all conditions and for both the exact and contextually acceptable scoring methods.

- - - - - - - - - - - - -

Insert Figure 1 about here

- - - - - - - - - - - - -

In Table III, the means over each condition for each test and grand means over both tests and conditions are given. It is clear from the means alone that the main differences are due to conditions rather than to any differences that may have existed between the tests or subject groups. This can be seen more clearly by reading across the last two rows and down the last column. The last column presents means over conditions and shows differences between S's tested and/or the cloze tests themselves. The variables of test and groups tested are confounded, but

it is apparent that the two variables combined are not contributing much to the contrasts in the data. However, it is possible to look at the passage variables independent of S's and/or tests by rearranging the means in accord with the permutations listed in Table II. The result of such an arrangement is given in Table IV. (Of course, the grand means for the columns would be exactly the same in Tables III and IV so they are not presented in Table IV.)

- -

Insert Tables III and IV about here

- -

Figures 2 - 6 display graphically the contrasts between means for Table IV. From the Figures it is clear that even on individual passages, the contrasts between means generally conform to the experimental hypothesis in spite of the fact that the contrasts are somewhat confounded by differences between the groups tested. There actually are two reversals in predicted differences. The contrasts between the 50th and the 25th orders of approximation favor the 25th over the 50th for the exact word scoring on passages II and V by .1 in each case. (See Figures 3 and 6.)

- -

Insert Figures 2 - 6 about here

- -

A two-way analysis of variance with the five groups/tests as the first variable and the five conditions as the second variable was computed for both scoring methods. For the exact word scoring, the conditions variable was significant [$F(1, 4) = 1560$, $p < .001$] and the interaction between the groups/tests variable and the conditions variable was also

significant [F (16, 352) = 30, $p < .001$]. However, the contrast between groups/tests failed to reach significance at the $p < .05$ level [F (4, 88) = 2.4, $p > .05$]. By the more lenient scoring method the result was similar. The overall effect for conditions was significant [F (1, 4) = 2723, $p < .001$] and the interaction between groups/tests by conditions was also significant [F (16, 352) = 8.31, $p < .001$]. Contrasts between groups/tests however, failed to reach significance at the $p < .05$ level [F (4, 88) = 1.20, $p > .31$].

The fact that S's scored higher on cloze items embedded in longer contexts than on the same items embedded in shorter segments of prose, is merely another special demonstration of a very general fact--namely, that long range context is important to the processing of verbal material. A number of other studies in recent years have provided other special demonstrations of this fact. For example, Dooling and Lachman (1971) showed that understanding the topic of a passage of prose aided in the recall of the words used in the passage. Bransford and Johnson (1972) and Dooling and Mullet (1973) demonstrated that advance knowledge of the topic or "theme" of a passage of prose aids in the retention of the passage whereas knowledge of the topic after presentation does not improve retention. Thus it is clearly during the storage process that knowledge of topic is helprul. This conclusion accords well with the main hypothesis stated at the outset in this paper concerning grammar based expectancies. If the language user is able to anticipate information to be presented or at least the limits of the range of meanings, processing will thus be facilitated. Johnson, Doll, Bransford, and Lapinski (1974) showed that this is true even when the material to be presented and tested for recall consists of short, referentially vague sentences (e.g., "The crowd expectantly waited

for the steam (geyser); He kicked twice but got no change (vending machine); The eye is comparatively calm (hurricane); and The bird was too small for the family (Thanksgiving dinner) p. 358).

Using a different experimental technique, Klein and Kl[illegible]973) showed that performance on a word recognition task was enhanc[illegible] contextual constraints were increased. Word sequences were typed without punctuation or spacing. S's were required to segment the words within a limited amount of time. Sequences presented to S's included 1st, 3rd, and 6th orders of approximation and normal prose. (The orders of approximation were generated by the Miller-Selfridge method.) S's also were presented with sequences that were ungrammatical, or anomalous, in relation to normal grammatical prose. In all cases contrasts favored the material that conformed more closely to normal prose. In accord with the Coleman (1963) argument, however, there was no significant contrast between the 3rd and 6th orders. As he argued, this lack of contrast is probably due to the inherent strangeness of the material at the 6th order generated by the Miller-Selfridge method.

In conclusion, the data from the present study show that the cloze procedure is sensitive to discourse constraints, and the possible point of diminishing returns for increasing orders of approximation must be well beyond fifty words of context, not at five or six words, as previously argued by Miller and Selfridge (1950) or within the immediate sentence context as claimed more recently by Carroll (1972).

Footnotes

[1]The author wants to thank Lisa Kahn and Nancy Morse for help with the handling of data reported in this paper. Dennis Muchisky and Merryl Kravitz also graciously helped in the administration of tests to students at the University of New Mexico. The paper was read in an abbreviated form at a special group session on applied linguistics at the 9th Annual TESOL Convention, Los Angeles, March 1975.

Table I. Schematic Illustration of Card Stacking for the Initial Pool of Five Hundred Cloze Items Ranging Over Five Orders of Approximation to Connected Discourse.

Passage	Normal Prose 100th+	50th	25th	10th	5th
I	$(1\text{-}20)_1$	$(1\text{-}10)_1$	$(1\text{-}5)_1$	$(1\text{-}2)_1$	$(1)_1$
		$(11\text{-}20)_2$	$(6\text{-}10)_2$	$(3\text{-}4)_2$	$(2)_2$
			.	.	.
			.	.	.
			.	.	.
			$(16\text{-}20)_4$	$(19\text{-}20)_{10}$	$(20)_{20}$
II*	. . . . .				
	.				
	.				
	.				
III	. . . . .				
	.				
	.				
	.				
	.				
IV	. . . . .				
	.				
	.				
	.				
	.				

*Ellipses simply mean repeat the stacking procedure of Passage I for II, III, IV, and V.

Table II. Permutations of Passages Over Conditions (Orders of Approximation) in order to Construct Five 100 Item Cloze Tests.

100 Item Cloze TESTS	Prose (100th +)	50th	25th	10th	5th
Test 1	I	II	III	IV	V
Test 2	II	III	IV	V	I
Test 3	III	IV	V	I	II
Test 4	IV	V	I	II	III
Test 5	V	I	II	III	IV

Table III. Means and Grand Means for Cloze Tests (i.e., Subject Groups) and Orders of Approximation with Both Exact (E) and Contextually Acceptable (A) Scoring Criteria.

Test # and N	Scoring Method	Prose 100th+	50th	25th	10th	5th	Grand Means for Tests
1 (N=20)	A	17.5	12.3	9.6	5.8	6.3	10.3
	E	8.3	4.2	6.0	4.2	4.6	5.5
2 (N=19)	A	15.5	13.6	11.1	10.5	5.8	11.3
	E	5.3	7.4	8.1	6.3	3.0	6.0
3 (N=19)	A	16.3	12.5	12.6	9.7	4.2	11.1
	E	8.5	9.0	8.4	4.3	1.3	6.3
4 (N=18)	A	16.6	14.4	12.4	8.2	6.0	11.5
	E	12.7	8.3	5.5	3.6	4.3	6.9
5 (N=17)	A	19.2	15.3	11.5	6.8	5.3	11.6
	E	11.3	6.5	4.3	4.9	3.9	6.2
Grand Means for Orders of Approximation	A	17.0	13.6	11.4	8.2	5.5	
	E	9.2	7.1	6.5	4.7	3.4	

Table IV. Means Rearranged by Passage and Grand Means over Passages

Passage	Scoring Method	Prose 100th+	50th	25th	10th	5th	Grand Means for Passages
I	A	17.5	15.3	12.4	9.7	5.8	12.1
	E	8.3	6.5	5.5	4.3	3.0	5.5
II	A	15.5	12.3	11.5	8.2	4.2	10.3
	E	5.3	4.2	4.3	3.6	1.3	3.7
III	A	16.3	13.6	9.6	6.8	6.0	10.5
	E	8.5	7.4	6.0	4.9	4.3	6.2
IV	A	16.6	12.5	11.1	5.8	5.3	10.3
	E	12.7	9.0	8.1	4.2	3.9	7.6
V	A	19.2	14.4	12.6	10.5	6.3	12.6
	E	11.3	8.3	8.4	6.3	4.6	7.8

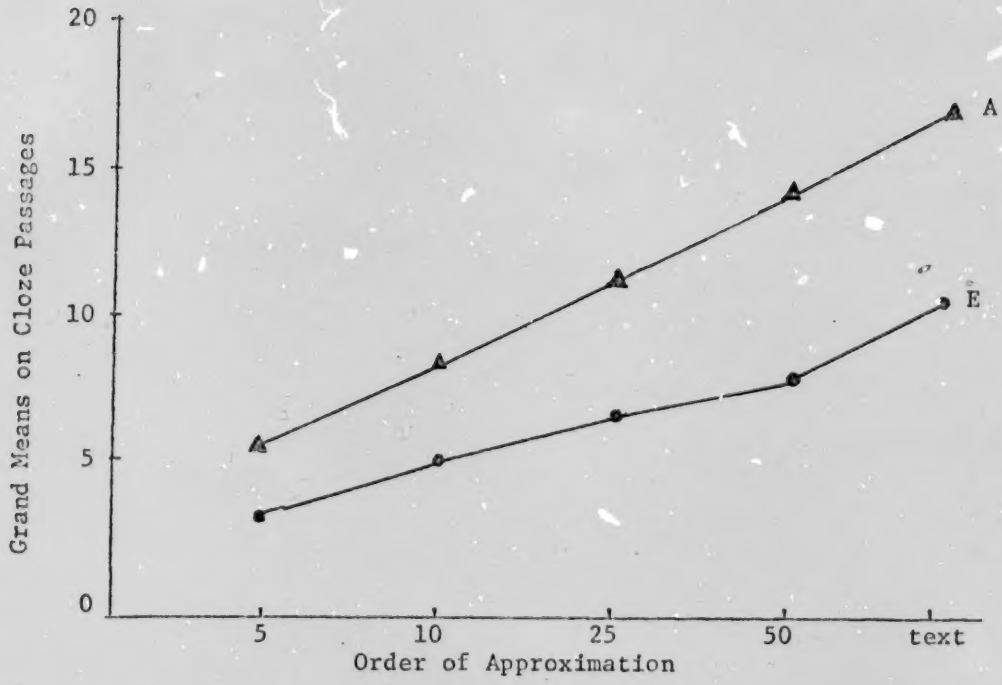

Figure 1. Mean scores for exact (E) and contextually acceptable (A) scoring criteria for cloze tests over various orders of approximation to connected discourse.

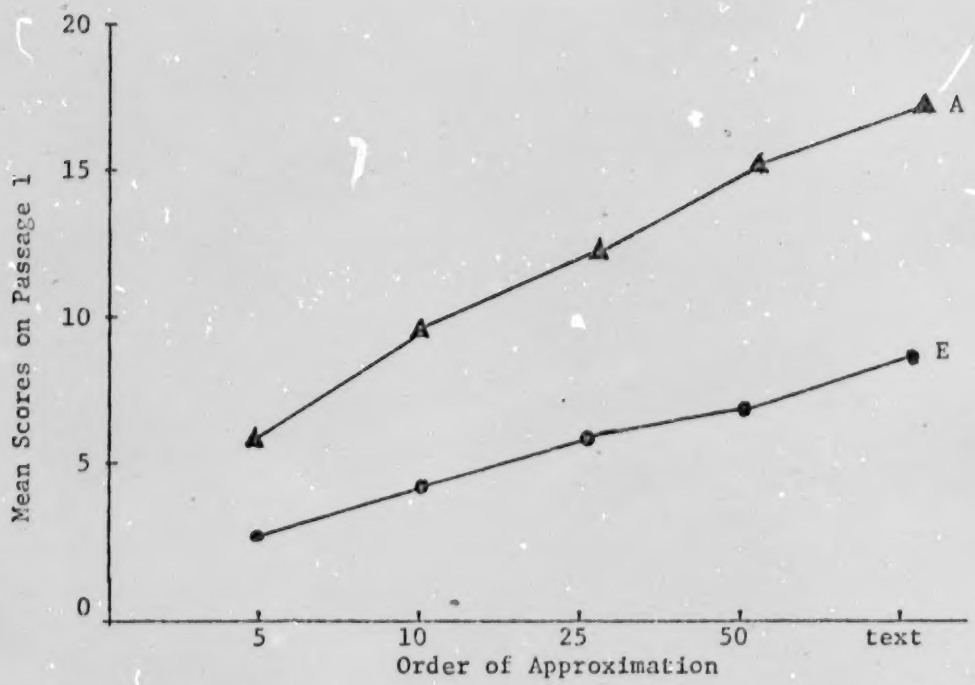

Figure 2. Mean scores for exact (E) and contextually acceptable (A) scoring criteria for passage I in various orders of approximation to connected discourse.

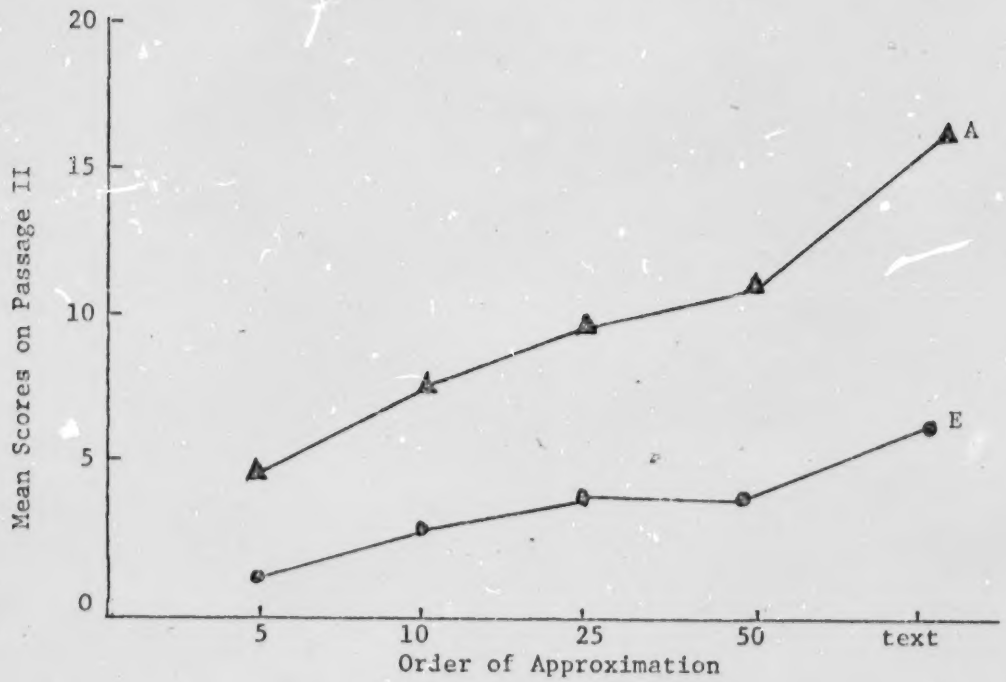

Figure 3. Mean scores for exact (E) and contextually acceptable (A) scoring criteria for passage II in various orders of approximation to connected discourse.

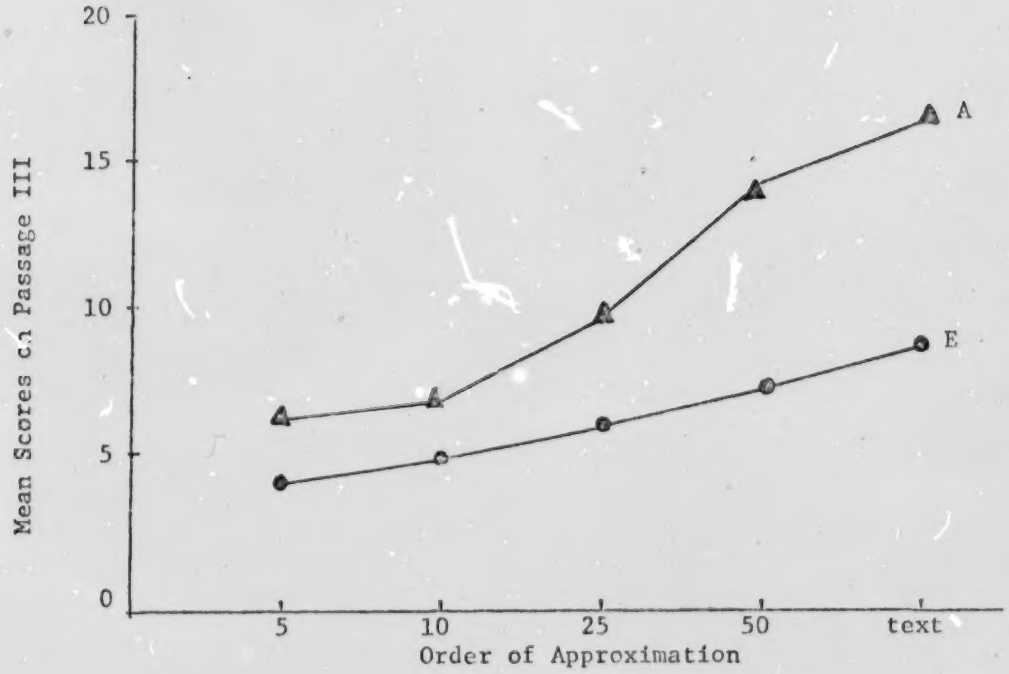

Figure 4. Mean scores for exact (E) and contextually acceptable (A) scoring criteria for passage III in various orders of approximation to connected discourse.

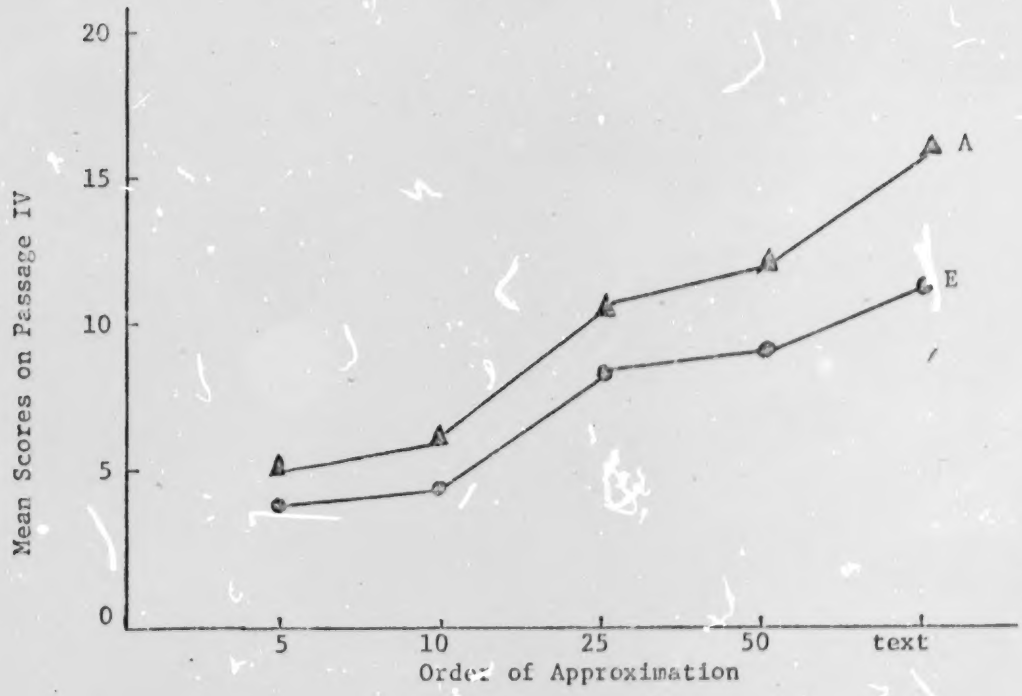

Figure 5. Mean scores for exact (E) and contextually acceptable (A) scoring criteria for passage IV in various orders of approximation to connected discourse

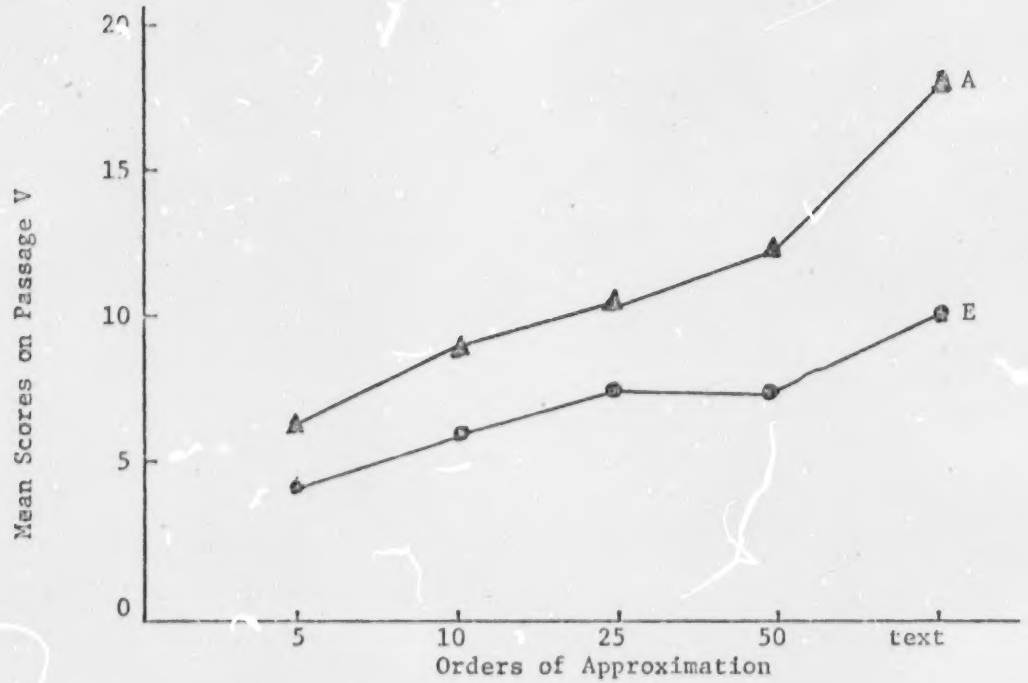

Figure 6. Mean scores for exact (E) and contextually acceptable (A) scoring criteria for passage V in various orders of approximation to connected discourse.

Appendix

Passage I

For those who hang out there, the Carry-out offers a wide array of sounds, sights, smells, tastes, and tactile experiences which titillate and sometimes assault the five senses. The air is (1) warmed by smells from the (2) coffee urns and grill and (3) thickened with fat from the (4) deep-fry basket. The jukebox offers (5) up a wide variety of (6) frenetic and lazy rhythms. The (7) pinball machine is a standing (8) challenge to one's manipulative skill (9) or ability to will the (10) ball into one or another (11) hole. Flashing lights, bells and (12) buzzers report progress or announce (13) failure. Colorful signs exhort customers (14) to drink Royal Crown Cola and eat (15) Bond Bread. On the wall, above (16) the telephone, a long-legged blond (17) in shorts and halter smiles (18) a fixed wet-lipped smile of (19) unutterable delight at her Chesterfield cigarette (20), her visage unmarred by a mustache or scribbled obscenities. In the background, a sleek ocean liner rides a flat blue sea to an unknown destination (Gorrell, Laird, and Freeman, 1970, p. 29).

Passage II

It is possible to get an education at a university. It has been (1) done; not often, but the (2) fact that a proportion, however (3) small, of college students do (4) get a start in interested (5), methodical study, proves my thesis (6), and the two personal experiences (7) I have to offer illustrate (8) it and show how to (9) circumvent the faculty, the other (10) students, and the whole college (11) system of mind-fixing. My method (12) might lose a boy his (13) degree, but a degree is (14) not worth so much

as (15) the capacity and the drive (16) to learn, and the undergraduate (17) desire for an empty baccalaureate (18) is one of the holds (19) the educational system has on (20) students. Wise students some day will refuse to take degrees, as the best men (in England, for instance) give, but do not themselves accept, titles (Gorrell, Laird, and Freeman, 1970, pp. 33-4).

Passage III

The statement of the main idea, discussed in the preceding chapter, helps the writer organize the subdivisions of his paper. As he writes (1), he also recognizes and unifies (2) material within the subdivisions, using (3) the paragraph as his unit (4) of composition.

Paragraphs can be (5) written in many ways, but (6) one basic type is so (7) useful for expository writing that (8) we are calling it the (9) standard paragraph. It includes the (10) following: (1) topical material to introduce (11) the subject; (2) development to illustrate (12) or support or extend the (13) subject, material that may break (14) into divisions or even subdivisions (15); and (3) sometimes a conclusion. Using (16) this pattern, the most obvious (17) and most useful way to (18) construct a paragraph is to (19) write a topic sentence and (20) add specification to support it (Gorrell, Laird, and Freeman, 1970, p. 26).

Passage IV

On some occasions, a single word--"Fire!" or "Murder!" for example--is a complete message; context and tone of voice supply the unspoken information. Usually, however, communication (1) requires more, that we not (2) only name a topic but (3) say something about it--"The (4) fire is spreading" or "The (5) fire was caused by faulty (6) wiring." A simple sentence "The (7) horse is eating," gets uttered (8), not because we think

of (9) the topic "horse" and then (10) search for something to say (11) about it, but because we (12) want to report on what (13) we have observed, want to (14) say something about the horse (15). If we have a great (16) deal more to say about (17) a horse, the result may (18) be not a simple sentence (19) but an article or a (20) book. Writing a simple sentence or a longer composition includes at least a topic and a comment about it, although the line between the two may not be precise (Gorrell, Laird, and Freeman, 1970, p. 1).

Passage V

When Sir Edward Travers died Suddenly and mysteriously there was consternation and speculation, not only in our neighborhood but throughout the country. One newspaper headline (1) ran: SIR EDWARD TRAVERS VICTIM OF (2) CURSE? Another reported: SUDDEN DEATH (3) OF EMINENT ARCHAEOLOGIST BRINGS ABRUPT (4) END TO EXPEDITION.

A paragraph (5) in our local paper stated (6), "The death of Sir Edward Travers, who (7) recently left this country to (8) carry out excavations among the (9) tombs of the pharoahs, has (10) caused us to wonder if (11) there is any truth in (12) the ancient belief that he (13) who meddles with the resting (14) place of the dead invites (15) their enmity."

Sir Ralph Bodrean at (16) Keverall Court, our local squire and (17) Sir Edward's closest friend, had (18) given financial aid to the (19) expedition, and when, a few (20) days after the announcement of Sir Edward's death, Sir Ralph had a stroke, it was hinted that his misfortune was the result of the same curse (Holt, 1973, p. 325).

References

Bransford, J. D. and M. K. Johnson. 1972. Contextual prerequisites for understand: some investigations of comprehension and recall. Journal of Verbal Learning and Verbal Learning and Verbal Behavior 11.717-26.

Carroll, J. B. 1972. Defining language comprehension: some speculations. in Carroll, J. B. and R. O. Freedle (eds.) Language Comprehension and the Acquisition of Knowledge. New York: Wiley. Pp. 1-26.

Coleman, E. B. 1963. Approximations to English: some comments on the method. American Journal of Psychology 76. 239-47.

Deese, J. 1961. From the isolated unit to connected discourse. In C. N. Cofer (ed.) Verbal Learning and Verbal Behavior. New York: McCraw Hill. Pp. 11-31.

Dooling, D. J. and R. Lachman. 1971. Effects of comprehension on retention of prose. Journal of Experimental Psychology 88. 216-22.

Dooling, D. J. and R. L. Mull . 1973. Locus of thematic effects in retention of prose. Journal of Experimental Psychology 97. 404-6

Gorrell, R. M., C. Laird, R. E. Freeman (eds.) 1970. Modern English Reader. Englewood Cliffs, N.J.: Prentice-Hall.

Holt, Victoria. 1973. Curse of the kings. New York: Doubleday. Readers Digest, vol III, Pp. 324-466.

Johnson, M. K., T. J. Doll, J. D. Bransford, and R. H. Lapinski. 1974. Context effects in sentence memory. Journal of Experimental Psychology 103. 358-60.

Klare, George R. 1974-5. Assessing readibility. Reading Research Quarterly 10. 62-102.

Klein, G. A. and H. A. Klein. 1973. Word identification as a function of contextual information. American Journal of Psychology 86. 399-406.

Miller, G. A. and J. Selfridge. 1950. Verbal context and the recall of meaningful material. American Journal of Psycholcgy 63. 176-85.

Oller, J. W., Jr. in press. Research with cloze procedure relevant to the investigation of the proficiency of non-native speakers of English. Washington D. C.: Center for Applied Linguistics.

Riley, P. M. 1973. The cloze procedure: a selected annotated bibliography. LAE: PNG. University of Technology.

Sharp, H. C. 1958. The effect of contextual constraint upon recall of verbal passages. American Journal of Psychology 71. 568-72.